

CLAIMS:

1. Circuit arrangement for operating a high pressure discharge lamp comprising

- input terminals for connection to a supply voltage source,
- a DC-DC-converter coupled to the input terminals for generating a DC current out of a supply voltage supplied by the supply voltage source and comprising

5 - a control circuit for controlling the DC current at a value that is represented by a reference signal S_{ref} ,

 - a reference circuit for generating the reference signal S_{ref} , and an output capacitor,

10 - a commutator for commutating the polarity of the DC current and comprising lamp connection terminals and an ignition inductor,

 - a first circuit part for modulating the reference signal S_{ref} at a modulation frequency that equals the frequency of the commutation of the DC current by subsequently

15 - decreasing the reference signal S_{ref} by an amount ΔS_{ref} during a first time interval Δt_1 that starts a second time interval Δt_2 before each commutation of the DC current,

 - maintaining the reference signal at the decreased value during a third time interval Δt_3 ,

 - increasing the reference signal S_{ref} by an amount ΔS_{ref} during a fourth time interval Δt_4 ,

20 characterized in that the circuit arrangement further comprises

- a second circuit part for adjusting at least one parameter chosen from the group formed by ΔS_{ref} , Δt_1 , Δt_2 , Δt_3 and Δt_4 in dependency of a parameter chosen from the group formed by the power consumed by the lamp, the lamp voltage and the lamp current.

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2. Circuit arrangement according to claim 1, wherein the second circuit part comprises a memory in which one or more tables are stored, each of the tables comprising a range of lamp power levels and for each value of the lamp power level in the range a corresponding value for one or more of the parameters ΔS_{ref} , Δt_1 , Δt_2 , Δt_3 and Δt_4 .

3. Circuit arrangement according to claim 2, wherein each of the tables comprises data for a predetermined range of the lamp voltage.

5 4. Circuit arrangement according to claim 1, wherein the second circuit part comprises a memory in which a one or more tables are stored comprising a range of lamp voltage values and for each value of the lamp voltage in the range a corresponding value for one or more of the parameters ΔS_{ref} , Δt_1 , Δt_2 , Δt_3 and Δt_4 .

10 5. Circuit arrangement according to claim 4, wherein each of the tables comprises data for a predetermined range of the lamp power.

6.. Circuit arrangement according to claims 1-5, wherein the second circuit part comprises a microcontroller.